

REMARKS**General**

Applicant has rewritten all previous claims as new Claims 7 – 18 to define the invention more particularly and distinctly so as to overcome the technical objections and rejections and to define the invention patentability over the prior art. All dependent claims (Claims 8 – 18) refer to the primary independent claim, Claim 7. An additional independent claim, Claim 19, was drafted to define the invention as a method claim reciting the novel method for using the fireplace tool.

The Specification has been amended to better describe the novel structure and features of the invention and to revise terminology to correspond to the more precise terminology now used in the claims. No new material has been added.

Claim Objections under 37 CFR 1.75(c).

The First Office Action objected to Claims 3 - 6 as being improper form because they each referenced multiple claims. Applicant has deleted Claims 3 – 6.

Claim Rejections under 35 USC 112.

The First Office Action rejected Claims 1 and 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as his invention. Claim 1 recited the limitation of “the spring effect” without sufficient antecedent basis. The claims were narrative in form, with indefinite and functional or operational language, parenthetical comments, references to figures, and ambiguous language. Applicant has deleted Claims 1 and 2, replacing both with a new Claim 7 that eliminates the flaws in the language of Claims 1 and 2 and overcomes the rejections under 35 USC 112.

Claim Rejections Under 35 USC 102(e).

The First Office Action rejected Claims 1 and 2 as being anticipated by Fitzgibbons US Patent Application Publication 2004/0016170 A1, specifically: “Claims 1 and 2 are

rejected under 35 U.S.C 102(e) as being anticipated by Fitzgibbons US Patent Application Publication 2004/0016170 A1. Fitzgibbons discloses a tool capable of lifting and repositioning a log in a fireplace, having a handgrip (80) on one end, a connecting rod in the middle (90), and on the other end an open-jawed mouth formed at an angle that is capable of gripping a log using friction created by a spring effect of the open-jawed mouth and a series of friction ridges (70) around the inner perimeter of the mouth (figure 1); a wedge tip (60) on the side of the mouth opposite the connecting rod approximately two inches beyond the side of the mouth (fig 2)."

The First Office Action also rejected Claims 1 and 2 as being anticipated by McKinney, et al US Patent 2,783,926, specifically: "Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by McKinney et al. McKinney et al discloses a fish gaff capable of lifting and repositioning a log in a fireplace, having a handgrip (12) on one end, a connecting rod in the middle (13), and on the other end an open-jawed mouth (jaws 14 and 15) formed at an angle that is capable of gripping a log using friction created by a spring effect (spring 30) of the open-jawed mouth and a series of friction ridges (17) around the perimeter of the mouth (figure 3); a wedge tip (bottom 17) on the side of the mouth opposite the connecting rod approximately two inches beyond the side of the mouth."

New Claim 7, which replaces cancelled Claims 1 and 2, recites novel subject matter over both Fitzgibbons and McKinney. Novelty is specifically defined in the remarks that follow.

Novelty of the Present Invention.

The present invention is novel in physical structure, having a unary, v-shaped open-jawed mouth, with its inner perimeter lined with ridges. The open-jawed mouth is unary in that it is constructed of a single structural element, with no pivot points, joints or moving parts in the mouth (or the entire tool). The mouth opens in the direction

opposite the user such that the mouth is urged over a fire log via a simple pushing force. Pushing the resilient, open-jawed mouth over a fire log produces a spring effect, i.e., the sides of the mouth spring back against the log, and the ridges around the inner perimeter produce a pronounced friction effect. The combination of the spring effect and the friction effect cause the mouth to grip a log tightly, allowing a burning log to be conveniently lifted, moved about and released, without manipulating any levers, tongs or moving parts. The physical structure is novel and the resulting function is unexpected. Neither Fitzgibbons nor McKinney embody this structure or this function, as will be elaborated below. This invention is both novel and a major advance in log handling tools.

A Review of Fitzgibbons' Fish Gaff.

Fitzgibbons shows three embodiments (he calls 'aspects') of the gaff. One embodiment (Fitzgibbons Fig. 1) includes a straight hook shaft (30) that may include serrated teeth (70). The hook shaft may be terminated by a hook point (50), to provide penetrating ability when the gaff is thrust into a fish, and a hook barb (60), extending in the opposite direction from the hook point, to secure the gaff in the fish. The serrated teeth act to further secure the gaff within the fish. This embodiment also includes a mechanism (a detachable offset rope holder, 40) to allow detaching the handle from the gaff, with the gaff then secured by a rope. This embodiment of the apparatus is used by plunging the hook point, barb and shaft, with its serrated teeth, into a fish, then optionally detaching the gaff from its handle, leaving the gaff attached to a rope, with which the fish is pulled on board. The structure of this embodiment is a straight, penetrating structure, with its resistance to pulling out of the fish provided by the barb and serrated teeth.

A second embodiment (Fitzgibbons Fig. 2) is similar to the first, the primary difference being that the hook barb (60) has a different shape, being pointed away from the hook

point and parallel to the hook shaft. Use of the apparatus is the same as described for the first embodiment.

A third embodiment (Fitzgibbons Fig. 3) shows the hook point (50) end of the hook shaft (30) rounded into a semi-circular, hook-like shape, with the hook point (50) now pointing back toward the user. The remainder of the gaff apparatus is similar to the first and second embodiments. In this third embodiment, the user positions the hook point underneath the fish and plunges the hook point (50), barb (60) and shaft into the fish with a jerking or pulling motion, rather than a thrusting motion. The hook barb (60) and serrated teeth (70) serve to secure the gaff within the fish.

A Review of McKinney's Fish Gaff.

(The reference numbers that follow refer to McKinney Figures 2 and 3.) McKinney's gaff includes symmetrically opposed jaws (14 & 15), each jaw having inward pointing teeth (17) for impaling a fish when the jaws close. The jaws are held open, in a cocked position, by a coil spring trigger (30) that is of the exact length such that the spring is fully closed when the jaws are fully open. The upper ends of the jaws pivot about a point of attachment (16) to the lower end of a tubular rod (11). The jaws are also attached at pivot points to operating links (24 & 25), which are in turn pivotally attached to a cross member (22) that slides vertically in slots (21) in each side of the tubular rod (11). The cross member (22) is engaged by the lower end of a compression spring (20) inserted inside the tubular rod. The upper end of the compression spring is fixed by a pin (19) fixed in the tubular rod (11). Finger grips (26) are provided for manually cocking the gaff.

With the jaws in the cocked position, a user grips the handgrips (12 & 13, Fig 1), positions the gaff and thrusts it downward onto a fish, with the coil spring trigger (30) engaging the body of the fish. This forces the coil spring trigger (30) upward toward the central pivot point (16), thus releasing the trigger and causing it to move into the curved

position shown in Figure 3. With the trigger released, the compression spring (20) forces the cross member (22) and the control arms (24 & 25) downward and closes the jaws (14 & 15), impaling the fish on the teeth (17). The user can then grip the gaff handles (12 & 13) and lift the impaled fish on board

Rewritten Claims Provide Physical Distinctions over Prior Art.

Claims 1 and 2 have been rewritten as new Claim 7 to clearly define the elements of the apparatus and the physical structure of the invention over the prior art.

Claim 7, Element a. defines the open-jawed mouth as v-shaped, and Element f. defines its orientation such that the closed end of the mouth is directed toward the tool's user. These elements clearly distinguish the structure of the invention over Fitzgibbons. (Distinction is described in more detail below.)

Claim 7, Element a. defines the open-jawed mouth as unary, meaning constructed of a single piece (or multiple pieces rigidly connected, e.g., via welding, to act as a single piece). A unary, open-jawed mouth has no pivot points, joints or moving parts. This unary structure of the open-jawed mouth clearly distinguishes the structure of the invention over McKinney. (Distinction is described in more detail below.)

Fitzgibbons Overcome.

The present invention provides a novel structure for gripping the external surface of an object, specifically a fire log. The structure includes a unary, v-shaped open-jawed mouth oriented such that the mouth is positioned at the lower end of the tool (the end opposite the user's hand grip), with the closed end of the mouth directed toward the tool's user. The user grasps the hand grip and thrusts the open end of the open-jawed mouth onto a log. The v-shaped mouth has no pivot point and is formed from or constructed to act as a single member, the sides of which flex in accordance with the modulus of elasticity of the construction material (typically, steel or iron). Thus, the

structure of the apparatus is such that when the mouth is pushed onto a log, the mouth acts as a v-shaped spring, resisting the jaw-opening forces created and hence gripping the log. The inner perimeter of the mouth is lined with ridges to magnify the friction on the inner surfaces of the mouth and strengthen the gripping effect.

Fitzgibbons presents a fish gaff that differs in both physical structure and function from the applicant's invention. No embodiment of the apparatus described by Fitzgibbons includes a structure for gripping the external surface of a fish, a log or any other object. Although the First Office Action did not identify the specific part of any one of the three embodiments of Fitzgibbon's apparatus that constitutes an open-jawed mouth, it seems clear that the only embodiment that can be construed as having such a structure is the 3rd embodiment (Fitzgibbons Figure 3). All three embodiments (Fitzgibbons Figures 1, 2, & 3) include a hand grip (80), connecting rod (90), wedge tip (50), and teeth (70) that could be considered ridges. However, only in embodiment 3 is the gaff curved into a hook shape that might be construed as the equivalent of a mouth lined with teeth. The structure of the present invention is clearly distinguished from Fitzgibbons' third embodiment in that the open-jawed mouth is v-shaped, not hook-shaped, and the closed end of the mouth is directed toward the user, whereas Fitzgibbons' third embodiment presents the pointed end of the gaff bent into a semi-circular shape (the shape of a hook), with the semi-circle opening toward the user. Thus, none of the three embodiments of Fitzgibbons includes the novel structural elements of the present invention.

Fitzgibbons' invention is from a different field (fish gaffs) from the present invention, and a careful examination indicates the basic physical structure in each of the embodiments is inoperative for log handling. There is no structure or mechanism present for gripping the external surface of a fish, log or any other object. Its function as a fish gaff depends on plunging its pointed end through the body of a fish. In embodiments 1 and 2, the pointed end of the gaff is directed away from the user, and the plunging is accomplished

by a thrusting or pushing motion. In embodiment 3, the pointed end is directed toward the user, and the plunging is accomplished by a jerking or pulling motion. In none of the embodiments is there a structure or mechanism operative for log handling. The primary commonality between Fitzgibbons and the present invention is the use of some common terminology (e.g., elongated rod, handgrip, etc).

McKinney Overcome.

The simple structure of the present invention is obviously much different from the complex structure presented by McKinney for gripping a fish. (The numbers that follow refer to McKinney Figure 2.) McKinney's gaff includes two pivoting jaws (14 & 15), two control arms (24 & 25), each pivoting at each end, a sliding cross member (22), a coil spring trigger (30) and a compression spring (20), for a total of six moving parts and five pivot points. The present invention is distinguished from McKinney by the unary structure of the v-shaped, open-jawed mouth, which includes none of these elements, no moving parts and no pivot points.

Like Fitzgibbons, McKinney's invention is from a different field (fish gaffs) from the present invention, and a careful examination indicates its basic physical structure is inoperative for log handling. There are at least three structural characteristics that make it inoperative: (1) the shape and large size of its jaws preclude its being conveniently manipulated to grip a burning log laying among several such burning logs in a fireplace; (2) its long coil spring trigger inside the jaws, the exact length of which is critical to its function as a trigger, would be in direct contact with a burning log, subjecting it to intense heat, burning embers, ashes and fireplace trash, making its reliability highly doubtful; and (3) the position of the handgrip when releasing the jaws would be very near the fire, making it all but impossible for a user to release a burning log without being burned. These factors all preclude the viable operability of this fish gaff as a fireplace tool. The primary commonality between the present invention and McKinney is

the use of some common terminology (e.g., elongated rod, connecting rod, handgrip, jaws, etc).

Novel Features and Functions are Not Obvious.

The distinctions defined above are submitted to be of patentable merit under Section 103. There are numerous valid arguments that the present invention is not obvious:

- a. **Unsolved Need.** This invention solves a need that has existed for as long as mankind has been building wood-burning fires and poking at the hot logs to better position them for burning. Anyone with much experience building wood-burning fires will readily recognize that the capability to grip, lift and reposition a burning log is an unsolved need. Thus this invention solves a long-standing, recognized but unsolved need. This argues strongly against obviousness.
- b. **Failure of Prior Art Workers.** Those skilled in the art have found the problem of creating a simple tool, a tool with no moving parts and simplicity equivalent to a common fireplace poker, that is capable of gripping, lifting, repositioning and releasing a burning log in a fireplace to be insoluble. This invention solves that problem. The failure of prior art workers is a very strong indication that the solution offered by the present invention is not obvious.
- c. **Greatly Reduced Complexity.** Complexity embodied in prior art has been eliminated. Whereas every other functionally capable log-handling tool embodies multiple moving parts and pivot points, the present invention includes none. It is a vastly simpler tool than any previously disclosed, simpler to use, simpler to build and simpler to maintain, essentially requiring no maintenance.
- d. **Absence of Any Commercially Viable Tool.** Those skilled in the art have failed to implement any commercially viable fireplace tool capable of lifting and repositioning

a burning log in a fireplace. Prior attempts to invent and implement such a tool, as exemplified by those cited in this Application and in the Information Disclosure Statement, typically involve an apparatus with multiple moving parts, such as various forms of tongs, that require the user to manipulate the gripping mechanism using one or both hands while at the same time lifting and moving about the burning log. These devices are awkward and difficult to use, not simple to manufacture and are subject to malfunction due to wear and corrosion of pivot points subjected to intense heat. That no apparatus with the functional capabilities of the present invention and the ease of manufacture and durability afforded by the one-piece steel embodiment has been successfully marketed is a strong indication that this solution is not obvious.

- e. **New Principal of Operation.** This invention utilizes a principle of operation heretofore unknown in fireplace tools. Specifically, this tool uses a combination of two effects that together produce a unique log-gripping capability. First, the v-shaped, open-jawed mouth, constructed of steel or a fire-resistant material with a similar modulus of elasticity, presses against the sides of a log with increasing pressure as the jaws of the mouth are forced wider by the urging of the mouth onto the log. The jaws of the mouth exhibit a spring-like effect that clamps the jaws tighter against the log as the log is urged deeper into the mouth. Second, the ridges placed at intervals around the inner perimeter of the open-jawed mouth create a greatly enhanced friction effect that increases progressively as the log is urged deeper into the mouth. The principle of operation that creates the gripping force from the combination of these two effects is unique and has never been applied in a log-handling tool. Thus, this invention is a trailblazer for such tools. The principle and its application to a log-handling tool are simple, but certainly not obvious.

- f. **Prior Art Citations from Different Field.** The prior art references cited by the First Office Action are from a different field (fish gaffs) from the present invention and are inoperative for log handling. This argues against obviousness.
- g. **Different Problem Solved.** This invention clearly solves a different problem from that solved by the cited prior art references, and the different problem solved is clearly recited in the claims. This also argues against obviousness.

New Dependent Claims.

New dependent Claims 8 to 18 incorporate all the subject matter of Claim 7 and add additional subject matter which makes them a fortiori and independently patentable over the prior art cited by the Examiner.

Non-applied References.

Applicant has reviewed the references cited, but not applied, in the First Office Action. Neither Lynch nor Poiencot describe the current invention or render it obvious. Both are from a different field (fish gaffs), solve a different problem, and are inoperative as log handling tools.

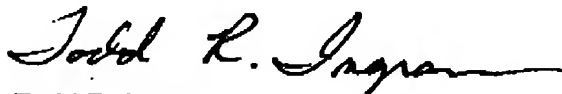
Conclusion.

Applicant has amended the specification and claims of this application and submits that they are now in proper form, that the claims are proper, definite, and define novel structure which is also unobvious, thus defining patentability over the prior art. Thus, applicant respectfully submits that the claims comply with Section 112, the claims define over the prior art under Section 102, and the claimed distinctions are of patentable merit under Section 103 because of the new, unexpected results provided. Therefore, he submits that this application is now in condition for allowance, which action he respectfully requests.

Conditional Request for Assistance.

Applicant thanks the Examiner for clearly and concisely pointing out in the First Office Action the bases for the objections and rejections. He especially appreciates the identification of the language flaws in the original claims. Applicant has made a bona fide effort to be fully responsive with this amendment and to put the application in full condition for allowance. If, for any reason this application is not believed to be in full condition for allowance, applicant respectfully requests the constructive assistance and suggestions of the Examiner pursuant to MPEP 2173.02 and 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible without the need for further proceedings.

Very respectfully,



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Certificate of Facsimile Transmission. I certify that on the date below I will fax this paper, Amendment A, Patent Application 10/829,080, to Examiner: Esther O. Okazie, Art Unit 3652 of the U.S. Patent and Trademark Office at the following number: (571) 273-8300.

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